

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A branching unit adapted to be integrated into a submarine telecommunication system comprising at least three cables having optical and electrical transmission members, said branching unit comprising:

three terminals connected to the electrical transmission members of the cables[[],];
three input points, ~~and~~;

three electrical contacts each between one of said terminals and one of said input points, ~~in which unit~~ wherein, in an operating configuration, and at a given time, a ~~first terminal and a second terminal~~ first and second terminals of said three terminals are electrically connected together and form a trunk segment adapted to convey a trunk current, and a third terminal of said three terminals is electrically connected to a submarine ground to form a branch segment adapted to convey a branch current, ~~said branching unit further comprising~~ ;

reconfiguration means adapted to control said electrical contacts for switching purposes[[],];

voltage measuring means for measuring a voltage indicating [[the]] a potential at a point on said trunk segment[[],];

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means for receiving and processing an optical reconfiguration signals, any optical signal
indicative of a reconfiguration request being made by means of an optical reconfiguration
signal; and

reconfiguration validation means coupled to said voltage measuring means and to said
reception and processing means and adapted to activate said reconfiguration means in
accordance with said optical reconfiguration signal only if [[the]] an absolute value of said
potential is below a threshold.

2. (Original) The branching unit claimed in claim 1 wherein said voltage measuring
means are associated with a voltage divider between said point on said trunk segment and a point
on said branch segment.

3. (Original) The branching unit claimed in claim 2 wherein said voltage divider is
of the resistive type and comprises at least one first resistor connected to one end of one of said
trunk segment points and branch segment points and at the other end to a second resistor of
greater value than said first resistor and connected to the other of said trunk segment points and
branch segment points.

4. (Original) The branching unit claimed in claim 1 wherein said threshold is less
than or equal to 100 V..

5. (Currently Amended) The branching unit claimed in claim 1 wherein said three
sliding electrical contacts are electromechanical, each electrical contact is formed of a mobile
first conductive part and a second conductive part, and said first mobile parts are fastened to said

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second conductive parts in an operating configuration and slide on said second conductive parts for switching.

6. (Currently Amended) The branching unit claimed in claim 5 wherein said mobile first conductive parts are commonly fastened to ~~the same~~ a mobile support for simultaneous switching, ~~said switching operations are coupled~~, and [[the]] lengths of said mobile first conductive parts are greater than [[the]] distances between ~~two~~ said second conductive parts.

7. (Currently Amended) The branching unit claimed in claim 5 wherein said sliding electrical contacts are chosen from contacts that move in a straight line and contacts that move about a rotation axis.

8. (Currently Amended) The branching unit claimed in claim 1 comprising means for identifying [[the]] an existence and [[the]] a sign of said trunk current at said first and second terminals and means for identifying [[the]] an existence and [[the]] a sign of said branch current at said third terminal and wherein said optical reconfiguration request defines specifies two of said three terminals to form a reconfigured trunk and said reconfiguration validation means are adapted to authorize said optical reconfiguration request only if the currents at the terminals defined for said reconfigured trunk are of opposite sign or zero in the operating configuration.

9. (Currently Amended) The branching unit claimed in claim 1 comprising means for storing said optical configuration reconfiguration signal.

10. (Currently) The branching unit claimed in claim 1 comprising at least one first electronic control card supplied with power by one of said trunk and branch currents and incorporating all of said reconfiguration means, said voltage measuring means, said means for

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receiving and processing, and said reconfiguration validation means, and a second electronic control card supplied by the other of said trunk and branch currents and comprising means similar to said means of said first card.

11. (Currently Amended) A submarine telecommunication system comprising at least three equipments chosen from terrestrial terminals and branching units and connected to said cables having optical and electrical transmission members, at least one of said equipments being connected to or corresponding to a terrestrial terminal comprising means for sending optical configuration signals, and at least one branching unit as claimed claim 1 comprising:

three terminals connected to the electrical transmission members of the cables;

three input points;

three electrical contacts each between one of said terminals and one of said input points, wherein, in an operating configuration, and at a given time, first and second terminals of said three terminals are electrically connected together and form a trunk segment adapted to convey a trunk current, and a third terminal of said three terminals is electrically connected to a submarine ground to form a branch segment adapted to convey a branch current;

reconfiguration means adapted to control said electrical contacts for switching purposes;

voltage measuring means for measuring a voltage indicating a potential at a point on said trunk segment;

means for receiving and processing an optical reconfiguration signal indicative of a reconfiguration request; and

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reconfiguration validation means coupled to said voltage measuring means and to said reception and processing means and adapted to activate said reconfiguration means in accordance with said optical reconfiguration signal only if an absolute value of said potential is below a threshold.

12. (Currently Amended) A method of reconfiguring a submarine telecommunication system as claimed in claim 11 comprising at least three equipments chosen from terrestrial terminals and branching units and connected to cables having optical and electrical transmission members, at least one of said equipments being connected to or corresponding to a terrestrial terminal comprising means for sending optical configuration signals, and at least one branching unit comprising three terminals connected to the electrical transmission members of the cables, three input points, three electrical contacts each between one of said terminals and one of said input points, wherein, in an operating configuration, and at a given time, first and second terminals of said three terminals are electrically connected together and form a trunk segment adapted to convey a trunk current, and a third terminal of said three terminals is electrically connected to a submarine ground to form a branch segment adapted to convey a branch current, said method comprising:

sending [[said]] an optical reconfiguration signal to one of said branching unit, units, said optical reconfiguration signal being indicative of a reconfiguration request;
voltage measurement by said voltage measuring means, measuring a voltage indicating a potential at a point on said trunk segment; and

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~~validation of performing~~ reconfiguration in accordance with said optical reconfiguration signal if the absolute value of said potential is below [[said]] ~~a~~ threshold, ~~and reconfiguration comprising switching said electrical contacts~~ said reconfiguration comprising switching said electrical contacts.

13. (Currently Amended) The method claimed in claim 12 ~~of reconfiguring a submarine telecommunication system~~ wherein said three electrical contacts are electromechanical, each electrical contact is formed of a mobile first conductive part and a second conductive part, said first mobile parts are fastened to said second conductive parts in an operating configuration and slide on said second conductive parts for switching, and switching is effected by simultaneous and coupled movements of said mobile first conductive parts of said sliding contacts.

14. (Currently Amended) The method claimed in claim 12 ~~of reconfiguring a submarine telecommunication system~~ comprising, before sending said optical reconfiguration signal, adjusting voltages at said terrestrial terminals associated with said trunk current to obtain said threshold whilst while maintaining said trunk current.

15. (Currently Amended) The method claimed in claim 12 ~~of reconfiguring a submarine telecommunication system~~ comprising, after sending said optical reconfiguration signal, progressively correcting [[the]] voltages at said terrestrial terminals associated with said trunk current in order to obtain said threshold whilst while maintaining said trunk current.